

CLAIMS

1. (Currently Amended) A method for fault management in a distributed network management station comprising:
initiating a first device coupled to a network; and
determining a status of the first device as a master device of the network or a slave device of the network by:
broadcasting, from the first device, an information packet over the network, the information packet indicating whether the first device had a prior status as a master device in a previous operational period,
listening, at the first device, for one or more responses to the information packet from one or more second devices coupled to the network, the one or more responses indicating a current state of the corresponding second devices as either master or slave devices of the network, and a prior status of the corresponding second devices as master devices in previous operational periods, wherein the information packet further comprises information regarding a total system-up-time of the first device and the responses indicate information regarding corresponding total system-up-times of the one or more second devices, the total system-up-times of the first device and the one or more second devices to indicate a total time the corresponding first device or more or more second device have been in an operational mode, ~~and~~
comparing the total system-up-times of the first device and the one or more second devices, and
determining the first device is the master device of the network or slave device of the network according to the comparison of the total system-up-times.
2. (Previously Presented) The method as recited in Claim 1, wherein said first device automatically initiates as a slave device.
3. (Original) The method as recited in Claim 1, wherein said information packet comprises a participating-device internet protocol (IP) of said first device.

4. (Original) The method as recited in Claim 3, wherein said information packet also comprises a participating-device message authentication code (MAC) of said first device.

5. (Previously Presented) The method as recited in Claim 1, further comprises determining the first device is the master of the network when no responses were received to the information packet.

6. (Previously Presented) The method as recited in Claim 1,
wherein said information packet additionally comprises information regarding a current state of said first device as a slave device of the network; and
determining the first device is the master device of the network based, at least in part, on any responses received from the one or more second devices coupled to the network.

7. (Previously Presented) The method as recited in Claim 1, further comprises:
comparing the prior status of the first device with the prior status of the one or more second devices received in the response to the information packet when one of the second devices is not currently the master device of the network according to the received responses;
and
determining the first device is the master device of the network or a slave device of the network according to the comparison of the prior status of the first device with the prior status of the one or more second devices.

8. (Canceled)

9. (Original) The method as recited in Claim 1, wherein said distributed network management station integrates plug-and-play capability of each of the plurality of devices into said network.

10. (Original) The method as recited in Claim 1, wherein said distributed network management station integrates scalability of each of the plurality of devices into said network.

11. (Original) The method as recited in Claim 1, wherein said distributed network management station integrates self-healing capabilities of each of the plurality of devices into said network.

12. (Previously Presented) A method for fault management in a distributed network management station comprising:

determining a status of a first device as a master device of a network or a slave device of the network by:

broadcasting, from the first device, an information packet over the network, the information packet indicating whether the first device had a prior status as a master device in a previous operational period,

listening, at the first device, for one or more responses to the information packet from one or more second devices coupled to the network, the one or more responses indicating a current state of the corresponding second devices as either master or slave devices of the network, and a prior status of the corresponding second devices as master devices in previous operational periods, wherein the information packet further comprises information regarding a total system-up-time of the first device and the responses indicate information regarding corresponding total system-up-times of the one or more second devices, the total system-up-times of the first device and the one or more second devices to indicate a total time the corresponding first device or one or more second devices have been in an operational mode,

comparing the total system-up-times of the first device and the one or more second devices, and

determining the first device is the master device of the network or a slave device of the network according to the comparison of the total system-up-times; and
initiating a fail-over process, wherein said fail-over process results in at least one of said slave devices re-evaluating which device coupled to the network is said master device.

13. (Previously Presented) The method as recited in Claim 12, wherein said information packet broadcast by said first device further comprises:

transmitting a participating-device internet protocol (IP) of said first device; transmitting a participating-device message authentication code (MAC) of said first device;

transmitting information regarding the previous state of said first device; transmitting information regarding the current state of said first device; and transmitting information regarding the total system-up-time of said first device.

14. (Canceled)

15. (Original) The method as recited in Claim 12, wherein said distributed network management station integrates plug-and-play capability of each of the plurality of devices into said network.

16. (Original) The method as recited in Claim 12, wherein said distributed network management station integrates scalability of each of the plurality of devices into said network.

17. (Original) The method as recited in Claim 12, wherein said distributed network management station integrates self-healing capabilities of each of the plurality of devices into said network.

18. (Previously Presented) The method as recited in Claim 12, wherein said re-evaluation by the slave device occurs due to a loss of communication with said master device.

19. (Previously Presented) The method as recited in Claim 18, wherein said re-evaluation by the slave device comprises questioning said master device for state or status.

20. (Previously Presented) The method as recited in Claim 19, wherein said state or status of said master device comprise at least one of said master device in a paused state, said master device in a crashed state, transmission control protocol (TCP) disconnect from said master device, or overall loss of master device.

21. (Previously Presented) A computer system comprising:

a bus;

a memory unit coupled to the bus; and

a processor coupled to the bus, the processor to broadcast an information packet over a network, the information packet indicating whether the computer system had a prior status as a master device in a previous operational period, to listen for one or more responses to the information packet from at least another device coupled to the network, the one or more responses indicating a current state of the corresponding other device as either master or slave device of the network, and a prior status of the corresponding other device as a master device in previous operational periods, wherein the information packet further comprises information regarding a total system-up-time of the computer system and the responses indicate information regarding corresponding total system-up-time of the other device, the total system-up-times of the computer system and the other device to indicate a total time the computer system or other device have been in an operational mode, the processor to compare the total system-up-times of the computer system and the other device and determine the computer system is the master device of the network or the slave device of the network according to the comparison of the total system-up-times.

22. (Previously Presented) The computer system of Claim 21, wherein said information packet comprises at least one of a participating-device internet protocol (IP) of said computer system, a participating-device message authentication code (MAC) of said computer system, or information regarding the total system-up-time of said first device.

23. (Canceled)

24. (Previously Presented) The computer system of Claim 21, wherein said distributed network management station comprises at least one of plug-and-play capability of said computer system, scalability of said computer system, or self-healing capability of said computer system.

25. (Previously Presented) The computer system of Claim 21, wherein the processor is configured to re-evaluate the status of the computer system as the master device or slave

device of the network when the computer system, as a slave device, loses communication with the master device.

26. (Previously Presented) The computer system of Claim 21, wherein the processor configured to resolve the status of the computer system by:

comparing the prior status of the computer system with the prior status of the other device received in the response to the information packet, and

determining the first device is the master device of the network or the slave device of the network according to the comparison.

27. (Previously Presented) The computer system of Claim 26, wherein said state or status of said master device comprise at least one of:

a paused state;

a crashed state;

a transmission control protocol (TCP) disconnect; or

overall loss of master device.

28. (Currently Amended) A computer-usable storage medium having computer-readable program code embodied therein for causing a computer system to perform fault management in a distributed network management station that comprises:

broadcasting, from a first device, an information packet over a network, the information packet indicating whether the first device had a prior status as a master device in a previous operational period;

listening, at the first device, for one or more responses to the information packet from one or more second devices coupled to the network, the one or more responses indicating a current state of the corresponding second devices as either master or slave devices of the network, and a prior status of the corresponding second devices as master devices in previous operational periods, wherein the information packet further comprises information regarding a total system-up-time of the first device and the responses indicate information regarding corresponding total system-up-times of the one or more second devices, the total system-up-times of the first device

and the one or more second devices to indicate a total time the corresponding first device or one or more second devices have been in an operational mode; and

comparing the total system-up-times of the first device and the one or more second devices; and

determining the first device is the master device of the network or the slave device of the network according to the comparison of the total system-up-times.

29. (Previously Presented) The computer-usable memory of Claim 28, wherein said first device initiates as a slave device.

30. (Previously Presented) The computer-usable memory of Claim 28, wherein said information packet comprises a participating-device internet protocol (IP) of said first device.

31. (Previously Presented) The computer-usable memory of Claim 30, wherein said information packet also comprises a participating-device message authentication code (MAC) of said first device.

32. (Previously Presented) The computer-usable memory of Claim 28, further comprises determining the first device is the master of the network when no responses were received to the information packet.

33. (Previously Presented) The computer-usable memory of Claim 28, wherein said information packet additionally comprises information regarding a current state of said first device as a slave device of the network; and

determining the first device is the master device of the network based, at least in part, on any responses received from the one or more second devices coupled to the network.

34. (Previously Presented) The computer-usable memory of Claim 28, further comprises:

comparing the prior status of the first device with the prior status of the one or more second devices received in the response to the information packet when one of the second

devices is not currently the master device of the network according to the received responses;
and

determining the first device is the master device of the network or the slave device of the network according to the comparison of the prior status of the first device with the prior status of the one or more second devices.

35. (Canceled)

36. (Previously Presented) The computer-usable memory of Claim 28, wherein said distributed network management station integrates plug-and-play capability of said first device into said network.

37. (Previously Presented) The computer-usable memory of Claim 28, wherein said distributed network management station integrates scalability of said first device into said network.

38. (Previously Presented) The computer-usable memory of Claim 28, wherein said distributed network management station integrates self-healing capabilities of said first device into said network.

39. (Previously Presented) A system comprising:

means for broadcasting, from a first device, an information packet over a network, the information packet indicating whether the first device had a prior status as a master device in a previous operational period;

means for listening, at the first device, for one or more responses to the information packet from one or more second devices coupled to the network, the one or more responses indicating a current state of the corresponding second devices as either master or slave devices of the network, and a prior status of the corresponding second devices as master devices in previous operational periods, wherein the information packet further comprises information regarding a total system-up-time of the first device and the responses indicate information regarding corresponding total system-up-times of the one or more second devices;

means for comparing the total system-up-times of the first device and the one or more second devices; and

means for determining the first device is the master device of the network or the slave device of the network according to the comparison of the total system-up-times.

40. (Previously Presented) The system of Claim 39, wherein said first device initiates as a slave device.

41. (Previously Presented) The of Claim 39, wherein said information packet comprises a means for participating-device internet protocol (IP) of said first device.

42. (Previously Presented) The system of Claim 41, wherein said information packet also comprises a means for a participating-device message authentication code (MAC) of said first device.

43. (Previously Presented) The system of Claim 39, further comprising means for determining the first device is the master of the network when no responses were received to the information packet.

44. (Previously Presented) The system of Claim 39, wherein said information packet additionally comprises means for providing information regarding a current state of said first device; and

means for determining the first device is the master device of the network based, at least in part, on any responses received from the one or more second devices coupled to the network.

45. (Currently Amended) The system of Claim 39, further comprising:

means for comparing the prior status of the first device with the prior status of the one or more second devices received in the response to the information packet when one of the second devices is not currently the master device of the network according to the received responses;
and

means for determining the first device is the master device of the network or the slave device of the network according to the comparison of the prior status of the first device with the prior status of the one or more second devices.

46. (Canceled)

47. (Previously Presented) The system of Claim 39, wherein said distributed network management station comprises a means for integrating plug-and-play capability of said first device into said network.

48. (Previously Presented) The system of Claim 39, wherein said distributed network management station comprises a means for integrating scalability of said first device into said network.

49. (Previously Presented) The system of Claim 39, wherein said distributed network management station comprises a means for integrating self-healing capabilities of said first device into said network.